

First Named Inventor: Thomas M. Aune

Application No.: 10/056,715

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REMARKS

All pending claims 1-16 were rejected in the first Office Action. For the following reasons, withdrawal of the rejections is respectfully requested.

Claim Rejections in View of Till

The Office Action rejected claims 1-4 and 9-10 under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Till, et al., U.S. Patent No. 3,073,735. However, Till does not teach or suggest each limitation of independent claim 1, from which claims 2-4 and 9-10 depend. Claim 1 recites that the filter cartridge comprises masses of "essentially continuous, intertwined, and thermally bonded polymer filaments." In contrast, it is clear that the fibers of Till are discontinuous. Till teaches that the fibers are intentionally cut to form discontinuous strands of fibers. (Col. 3, line 75 - col. 4, line 11; Col. 5, lines 43-45). The short fibers of Till are blown against and collected on a screen; they are then held against the screen by a suction force. (Col. 2, lines 42-46). The matt of fibers is removed from the screen and rolled up to form a tubular filter. (Col. 4, lines 49-51 and FIGS. 9 and 10). The fibers of Till are not essentially continuous, intertwined, and thermally bonded, as required by independent claim 1. Because Till does not teach or suggest each element of independent claim 1, it does not anticipate or render obvious the claimed subject matter. Therefore, claim 1 is allowable under 35 U.S.C. § 102(b) and 35 U.S.C. § 103(a). Because claims 2-4 and 9-10 depend therefrom, they are also allowable. Withdrawal of the rejection of claims 1-4 and 9-10 is respectfully requested.

Claim Rejections in View of Till and Barboza

The Office Action rejected claims 5-8 and 11-16 under 35 U.S.C. § 103(a) as being unpatentable over Till, et al. in view of Barboza, et al., U.S. Patent No. 5,783,011. However, the combination of Till and Barboza do not teach or suggest each claimed limitation. Claim 5, from which claims 6-8 depend, recites a "first filament zone defining a calendared layer having a density of filaments which is substantially greater than that of the second filament zone." Claim 11, from which claims 12-16 depend, recites that "a portion of the first mass of polymer filaments forms a

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calendered layer positioned adjacent the core member." The Office Action submits that Till fails to disclose such a calendered layer. Furthermore, Barboza does not disclose a calendered layer. Barboza teaches impaction of filtration and support fibers at the nip area between roller 23 and the filter cartridge only to cause melt bonding of the filtration fibers and support fibers at their crossing points. (Col. 5, lines 36-62). Barboza does not teach that this impaction results in a calendered layer of filaments, as required by claims 5 and 11. A calendered layer according to the present invention includes a smooth inner cylindrical surface which allows for easy post-production insertion of a core member. (Application page 7, lines 1-20). It is evident from Barboza's use of a perforated tube 12 that it would be impossible to form a calendered layer using Barboza's teachings. Any attempt to form such a layer would push filaments into the perforations of tube 12, rather than cause the filaments to compress into a calendered layer. Neither Till nor Barboza teaches or suggests a calendered layer. Therefore, the combination of Till and Barboza does not teach, suggest or provide motivation for each element of claims 5 and 11. Claims 6-8 depend from claim 5. Claims 12-16 depend from claim 11. Therefore, claims 5-8 and 11-16 are not rendered obvious and are therefore allowable under 35 U.S.C. § 103(a).

CONCLUSION

In view of the foregoing discussion, Applicant respectfully requests notice of the allowance of all pending claims 1-16.

The Commissioner is authorized to charge any additional fees associated with this paper or credit any overpayment to Deposit Account No. 11-0982.

Respectfully submitted,
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